## **REMARKS**

Claims 1-8 and 11 are pending in the application. Please consider this Response under 37 CFR §1.105.

Referring to page 12, point 16A-C:

No claimed equation is believed to be prior art due to at least the dependency upon Claim 1.

In view of the Claim 1, each claimed equation was created by the inventors.

The contribution of the authors of <u>Feinberg</u> et al. ("Sensor Resource Management for an Airborne Early Warning Radar," Proceedings of SPIE Vol. 4728, Signal and Data Processing of Small Targets (April 2002) is set forth in the attached declaration.

Referring to page 12, point 17:

A copy of the following references cited in the background of the present application are attached including:

- 1) <u>Holte</u> et al. "Pinwheel Scheduling with Two Distinct Numbers," *Theoretical Computer Science* (1992). Concise Explanation: describes pinwheel problem.
- 2) <u>Holte</u> et al. "The Pinwheel: A Realtime Scheduling Problem," *Proceedings of the Twenty-Second Annual Hawaii International Conference on System Sciences* (1989). Concise Explanation: describes pinwheel problem.
- 3) <u>Chan</u> et al. "General Schedulers for the Pinwheel Problem Based on Double Integer Reduction," *IEEE Transactions on Computers* (1992). Concise Explanation: describes pinwheel problem solved in polynomial time.

- 4) <u>Chan</u> et al. "Schedulers for Larger Classes of Pinwheel Instances," *Algorithmica* (1993) Concise Explanation: describes pinwheel problem solved in polynomial time.
- 5) <u>Lin</u> et al. "A Pinwheel Scheduler for Three Distinct Numbers with a Tight Schedulability Bound," *Algorithmica* (1997). Concise Explanation: describes pinwheel problem and pinwheel problem solved in polynomial time.

A copy of the following references cited in the provisional application (excluding those cited above), to which priority is claimed, are attached including:

- 6) <u>Baruah</u> et al., "Pfair scheduling of generalized pinwheel task systems," IEEE Transactions on Computers (1998). Concise Explanation: describes pinwheel problem.
- 7) <u>Feinberg</u>, "Constrained semi-Markov decision process with average rewards" (1994) Concise Explanation: describes constrained semi-Markov decision processes.
- 8) <u>Leung</u>, "A new algorithm for scheduling periodic, real time tasks" (1989). Concise Explanation: describes pinwheel problem.
- 9) <u>Feinberg</u> "Total Reward Criteria," *Handbook of Markov Decision Processes*, pp. 175-207, Kluwer, Boston (2002). Concise Explanation: describes infinite-horizon dynamic programming applied to a Fixed Dome Radar Management Problem.
- 10) Romer et al. "An Algorithm Reminiscent of Euclidean-gcd for Computing a Function Related to Pinwheel Scheduling," *Algorithmica* (1997). Concise Explanation: describes pinwheel problem.
- 11) <u>Baruah</u> et al., "Feasibility problems for recurring tasks on one processor," *Theoretical Computer Sciense* (1993) Concise Explanation: describes pinwheel problem.

12) Feinberg et al. "Generalized Pinwheel Problem," Math. Meth. Oper. Res. (2005)

Concise Explanation: Unpublished at time of the filing of the present application.

13) Alterman et al. "Time-sharing policies for controlled Markov chains," Operations

Research (1993). Concise Explanation: describes time-sharing.

The following documents cannot be readily obtained:

14) Bellman, "Dynamic Programming" Princeton University Press, Princeton, (1957).

Concise Explanation: describes Bellman's "curse of dimensionality."

15) Garey et al. "Computers and Intractability: A guide to the Theory of NP-

Completeness" W.H. Freeman, San Francisco (1979). Concise Explanation: describes 3-partition

problem.

16) Ross "Randomized and past-dependent policies for Markov decision processes with

multiple constraints" Operations Research (1989). Concise Explanation: describes time-sharing.

17) <u>Derman</u> et al., "Surveillance of multi-component systems: a stochastic traveling

salesmen problem" Naval Res. Logist. (1960). Concise Explanation: describes traveling salesmen

problem.

Early and favorable reconsideration of the case is respectfully requested.

Respectfully submitted,

Dated: June 30, 2008

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